

Appendix E - LTMBU Species Diversity

E.1 Forest-wide Biological Concepts

E.1.1 Biological Integrity

The biological integrity of aquatic or terrestrial ecosystems is defined as “the ability to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region” (SNEP 1996). Further discussions of biological integrity are presented for the Lake Tahoe basin in the LTWA (2000) and for the Sierra Nevada Mountains in the SNEP (1996). Individual species are adapted to conditions within the natural range of variability and are presumed to derive the greatest benefits (e.g., increased fitness and reproductive success) from environmental conditions within this range.

E.1.2 Biological Diversity

The law (The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) (88 Stat. 476, et seq.), as amended by the National Forest Management Act of 1976 (NFMA) (90 Stat. 2949, et seq.; 16 U.S.C. 1601-1614)), set standards for land and resource management planning across the National Forest System, including a requirement related to diversity of plant and animal communities. Specifically, NFMA states that plans must:

"(B) Provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives..."

The 1982 planning rule that implements this law requires the following be in forest plans:

- Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native species in the planning area (219.19)
- Each alternative shall establish objectives for the maintenance & improvement of habitat for MIS (219.19(a))
- Habitat determined to be critical for threatened and endangered species shall be identified, and measures shall be prescribed to prevent the destruction or adverse modification of such habitat. Objectives shall be determined for threatened and endangered species that shall provide for, where possible, their removal from listing as threatened and endangered species through appropriate conservation measures, including the designation of special areas to meet the protection and management needs of such species. (219.19(a) (7)).

E.1.3 Connectivity and Insularity

The connectivity of suitable habitats is a bio geographical concept often used to describe the probability that a suitable habitat may be utilized based on its spatial relationship to other suitable

habitats. The basic concept is founded on the idea that the probability of either of two suitable habitats having been, currently, or becoming occupied by a species increases with increases in the degree of connectivity between the suitable habitats. The mechanism of connectivity depends upon the species in question. Birds and fish obviously require different forms of habitat connectivity.

Insularity is a bio geographical concept that describes the inter-relationships of the conditions and processes between two or more habitats. For example, if a predator is known to forage along the boundary of two habitats (e.g., the edge of a meadow and a forest stand) then its prey species may require habitats located away from the habitat boundary (e.g., toward the interior of the forested stand) to survive and reproduce. The apparent suitability of habitats is, in this case, affected by the predator-prey relationship. Insularity may be described in relative degrees and may be either beneficial or detrimental depending on the ecological application (i.e., whether a given species is adapted to a high degree of insularity, as is often the case in island endemic species, or to a low degree of insularity, as is often the case in edge-adapted species).

Habitat fragmentation is a concept often used to describe how connectivity and insularity have changed over time at varying spatial scales (e.g., fragmentation at the stand versus landscape scale). Fragmentation can be defined as “loss of stand area, loss of stand interior area, changes in relative or absolute amounts of stand edge, and changes in insularity” (Turner 1989 in Buskirk and Ruggiero 1994).

E.1.4 Role of Fire

Fire plays a significant ecological role in Lake Tahoe Basin ecosystems. In many of the basin’s vegetation types, fire is the primary disturbance agent setting the compositional and structural characteristics of the stand. The role that fire plays in a system is described by the system’s fire regime, which is characterized by a number of attributes including fire return interval, fire intensity and severity, fuel consumption and spread patterns, seasonality etc. Different ecosystems and vegetation types have differing fire regimes inherent with the fuels, topography and climatic conditions associated with the system.

E.2 Species Lists

Biological documents (i.e. Biological Evaluation and Biological Assessment) have been prepared for the Draft EIS and Forest Plan and are available upon request. This section briefly highlights the purpose of those documents and the species considered for the Draft EIS and the Biological Evaluation and Biological Assessment.

The purpose of a **Biological Assessment** (BA) is to present an analysis of effects for the proposed project on federally listed endangered, threatened, candidate, and proposed species and their habitats. These federally listed species are managed under the authority of the Endangered Species Act (ESA) and the National Forest Management Act (NFMA; PL 94-588). The ESA requires federal agencies to ensure that all actions are not likely to jeopardize the continued existence of any federally listed species. The ESA requires that a BA be written and that the analysis conducted determine whether formal consultation or conference is required on the preferred alternative with the United States Department of Interior (USDI) Fish and Wildlife Service. For the Lake Tahoe Basin Management Unit (LTBMU), consultation has been agreed to

occur with both the Sacramento and Reno field offices (per the USDI 2004 coordination agreement). The BA is also prepared in compliance with the requirements of the ESA, Forest Service Manual 2670, and provides for compliance with Code of Federal Regulations (CFR) 50-402.12.

The purpose of a **Biological Evaluation** (BE) is to document Forest Service programs or activities in sufficient detail to determine how an action or proposed action may affect any threatened, endangered, proposed, candidate, or sensitive species and their habitats (FSM 2670.5). FSM 2672.4 directs us to complete the biological evaluation for all Forest Service planned, funded, executed, or permitted programs and activities for possible effects on Federally listed threatened, endangered, proposed, candidate, or species listed as sensitive by the Pacific Southwest Regional Forester (i.e. sensitive species). The BE, therefore, provides a process through which potential effects of the proposed action on sensitive species are evaluated and considered during the planning and review process. Part of the BE is completed to determine whether a proposed action or any of the alternatives will result in a trend toward the sensitive species becoming federally listed.

E.2.1. FWS List of Critical Habitat and Endangered, Threatened, Proposed, and Candidate Species for the LTBMU

The USDI Fish and Wildlife Service (FWS) species list is based on the most recent list of critical habitat designations, federally threatened, endangered, proposed, and candidate species for the Lake Tahoe Basin Management Unit (LTBMU). This list is periodically updated by the FWS as species become listed or delisted for the LTBMU. The most recent list for the LTBMU can be found on the FWS website at:

http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists_NF-form-page.htm .

Currently there are no endangered species or critical habitat listed for the LTBMU.

Currently there are three threatened species for the LTBMU:

- **Lahontan cutthroat trout** (*Oncorhynchus clarki henshawi*)
- **Delta smelt** (*Hypomesus transpacificus*)
- **Central Valley steelhead** (*Oncorhynchus mykiss*)

Currently there are no proposed species for listing for the LTBMU.

Currently there are five candidate species for the LTBMU:

- **Yosemite toad** (*Bufo canorus*)
- **Fisher** (*Martes pennanti*)
- **Sierra Nevada (mountain) yellow-legged frog** (*Rana muscosa*)
- **Tahoe yellow-cress** (*Rorippa subumbellata*)
- **White bark Pine** (*Pinus albicaulis*)

E.2.2. USFS List of Sensitive Species for the LTBMU

The list of Region 5 sensitive species is maintained by the Pacific Southwest Region - Regional Office and is periodically updated. The most recent list can be found on the USFS website at: <http://www.fs.fed.us/r5/projects/sensitive-species/>. The species listed in the table in this section are those that are currently listed as Forest Service Sensitive (FSS) for the LTBMU.

Table E1. Forest Service Sensitive (FSS) List for the LTBMU.

FSS - Group	Common Name	Scientific Name
Amphibians	Northern leopard frog	(<i>Rana pipiens</i>)
	Sierra Nevada yellow-legged frog	(<i>Rana sierrae</i>)
Birds	Bald Eagle	(<i>Haliaeetus leucocephalus</i>)
	California Spotted Owl	(<i>Strix occidentalis occidentalis</i>)
	Northern Goshawk	(<i>Accipiter gentiles</i>)
	Willow Flycatcher	(<i>Empidonax traillii adastus</i>)
Fish	Lahontan cutthroat trout	(<i>Oncorhynchus clarkii henshawi</i>)
	Lahontan Lake tui chub	(<i>Gila bicolor pectinifer</i>)
Invertebrate	Great Basin rams-horn	(<i>Helisoma newberryi newberryi</i>)

FSS - Group	Common Name	Scientific Name
Mammals	American marten	<i>(Martes americana)</i>
Mammals	California wolverine	<i>(Gulo gulo luteus)</i>
	Sierra Nevada red fox	<i>(Vulpes vulpes necator)</i>
	Townsend's big-eared bat	<i>(Corynorhinus townsendii)</i>
Plants	Blandow's bog moss	<i>Helodium blandowii</i>
	Bolander's candle moss	<i>Bruchia bolanderi</i>
	Branched collybia	<i>Dendrocollybia racemosa</i>
	Broad-nerved hump-moss	<i>Meesia uliginosa</i>
	Common moonwort	<i>Botrychium lunaria</i>
	Cup Lake draba	<i>Draba asterophora var macrocarpa</i>
	Galena Creek rock cress	<i>Arabis rigidissima var demota</i>
	Kellogg's lewisia	<i>Lewisia kelloggii ssp.hutchisonii</i>
	Kellogg's lewisia	<i>Lewisia kelloggii ssp kelloggii</i>
	Long-petaled lewisia	<i>Lewisia longipetala</i>
	Mingan moonwort	<i>Botrychium minganense</i>
	Scalloped moonwort	<i>Botrychium crenulatum</i>
	Short-leaved hulsea	<i>Hulsea brevifolia</i>

FSS - Group	Common Name	Scientific Name
Plants	Slender moonwort	<i>Botrychium lineare</i>
	Starved daisy	<i>Erigeron miser</i>
	Subalpine fireweed	<i>Epilobium howellii</i>
	Tahoe draba	<i>Draba asterophora var asterophora</i>
	Tahoe yellow cress	<i>Rorippa subumbellata</i>
	Three-ranked hump-moss	<i>Meesia triquetra</i>
	Tiehm's rock cress	<i>Arabis tiehmii</i>
	Torrey's or Donner Pass buckwheat	<i>Eriogonum umbellatum var. torreyanum</i>
	Upswept moonwort	<i>Botrychium ascendens</i>
	Veined water lichen	<i>Peltigera hydrothyria</i>
	Western goblin	<i>Botrychium montanum</i>
	White bark Pine	<i>Pinus albicaulis</i>
FSS – Forest Service Sensitive		

E.2.3. TRPA Threshold Species

In order to help maintain and protect natural resources in the Lake Tahoe Basin, the Tahoe Regional Planning Compact formed the Tahoe Regional Planning Agency (TRPA) Regional Plan which created and adopted environmental threshold carrying capacities (“thresholds” or “threshold standards”) in two documents for fisheries and wildlife resources. These documents, the Goals and Policies (TRPA 1986) and the Code of Ordinances and Rules of Procedure (TRPA 1987), provide guidelines for threshold standards (TRPA 2002).

The Forest Service analyzes environmental consequences for the TRPA threshold species (listed in Table E2) to support attainment of the TRPA environmental threshold carrying capacities for fisheries and wildlife.

Additional information and updates to this list can be found at the TRPA website:
<http://www.trpa.org/> .

Table E2. TRPA Threshold Species List

TRPA Threshold Species	Population Sites	Disturbance Zone (mi.)
Northern goshawk (<i>Accipiter gentiles</i>)	12	0.50
Osprey (<i>Pandion haliaetus</i>)	4	0.25
Bald eagle (winter) (<i>Haliaeetus leucocephalus</i>)	2	Mapped
Bald eagle (nesting)	1	0.50
Golden eagle (<i>Aquila chrysaetos</i>)	4	0.25
Peregrine falcon (<i>Falco peregrinus anatum</i>)	2	0.25
Waterfowl	18	Mapped
Mule deer (<i>Odocoileus hemionus</i>)	Critical fawning habitat	Meadows-Critical fawning habitat is mapped

E.2.4. Invasive Species

The LTBMU has identified and mapped areas on the Forest that include species identified as invasive by California Invasive Plant Council, Lake Tahoe Basin Weed Coordinating Group, Nevada Department of Agriculture (NDA) noxious weed list, Sierra Nevada Forest Plan Amendment, The California Department of Food and Agriculture's (CDFA) noxious weed list, and from the Lake Tahoe Aquatic Invasive Species Management Plan.

Invasive species rankings incorporates ecological impacts, invasive potential, and potential for effective management and control. High priority species are species that have likelihood for high ecological impacts, a high probability for invasion, and potential for effective management and control. The LTBMU works with interagency working groups to identify high, medium and low ranks for invasive species.

E.2.4.1. Terrestrial Invasive Plant Species

Lake Tahoe Basin Weed Coordinating Group (LTBWCG) prioritizes invasive weeds of concern for all of Lake Tahoe including the LTBMU. Rankings are shown in various groupings by agencies (e.g. Group 1: watch for, report, and eradicate immediately. Group 2: manage infestations with the goal of eradication), or can be determined using the ranking classification guidelines displayed at the end of this Appendix.

The California Department of Food and Agriculture's (CDFA) noxious weed list (<http://www.cdfa.ca.gov/phpps/ipc/>) divides noxious weeds into categories A, B, and C. A-listed weeds are those for which eradication or containment is required at the state or county level. With B-listed weeds, eradication or containment is at the discretion of the County Agricultural Commissioner. C-listed weeds require eradication or containment only when found in a nursery or at the discretion of the County Agricultural Commissioner. Q-listed weeds require temporary "A" action pending determination of a permanent rating.

Nevada Department of Agriculture (NDA) noxious weed list (http://agri.nv.gov/nwac/PLANT_NoWeedList.htm divides) divides noxious weeds into categories A, B, and C. Category "A": Weeds not found or limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state in all infestations. Category "B": Weeds established in scattered populations in some counties of the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur. Category "C": Weeds currently established and generally widespread in many counties of the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer.

Sierra Nevada Forest Plan Amendment (SNFPA) part 3.6 defines noxious weeds as: those plant species designated as noxious weeds by Federal or State law. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and generally non-native.

California Invasive Plant Council (Cal-IPC) invasive plant inventory (<http://www.cal-ipc.org/ip/inventory/weedlist.php>) categorizes non-native invasive plants by the ecological impacts of each plant on wildlands into three categories high, moderate, & limited as well as an alert. An "alert" is assigned for species with significant potential for invading new ecosystems. High: these species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Moderate: these species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Limited: these species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score.

Alien species: A species (including its seeds, eggs, spores, or other biological material capable of propagating that species) that is not native to a particular ecosystem. Executive Order 13112

Integrated Weed Management: An interdisciplinary pest management approach for selecting methods for preventing, containing, and controlling noxious weeds in coordination with other resource management activities to achieve optimum management goals and objectives. Methods include: education, preventive measures, herbicide, cultural, physical or mechanical methods, biological control agents, and general land management practices, such as manipulation of livestock or wildlife grazing strategies, which accomplish vegetation management objectives. USFS FSM 2900 Noxious Weed Management

Invasive Species: An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. Executive Order 13112

Native plant species: A plant species which occurs naturally in a particular region, state, ecosystem and habitat without direct or indirect human actions. FSM, 2070 Vegetation Ecology

Noxious Weed: A plant species designated as a noxious weed by the Secretary of Agriculture pursuant to the Plant Protection Act of 2000 or by the responsible State official. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and being non-native or new to or not common to the United States or parts thereof. FSM, 2070 Vegetation Ecology

Plant materials: Seeds, spores, parts of plants or whole plants. FSM, 2070 Vegetation Ecology

Rehabilitation: **Reparation of ecosystem processes, productivity and services based on functioning pre-existing or existing ecosystems, but allowing for adaptation of sites to specific current or future uses.** FSM, 2070 Vegetation Ecology

Restoration: **Assisting the recovery of an ecosystem that has been degraded, damaged or destroyed including the re-establishment of the pre-existing biotic integrity in terms of species composition and community structure.** FSM, 2070 Vegetation Ecology

Revegetation: Re-establishment of plants on a site. FSM, 2070 Vegetation Ecology

Undesirable Plants: Plant species that are classified as undesirable, noxious, harmful, exotic, injurious, or poisonous pursuant to State or Federal laws. Species listed as threatened or endangered by the Secretary of the Interior according to the Endangered Species Act of 1973 are not classified as undesirable plants. USFS FSM 2900 Noxious Weed Management

The table presented in this section shows the full list of current weeds and invasive plants that are considered by the various groups in the Lake Tahoe area. The following order of prioritization in management of invasive plant species are: First Priority: Prevent the introduction of new invaders; Second Priority: Conduct early treatment of new infestations; and Third Priority: Contain and control established infestations.

Table E3. Terrestrial Invasive Plant Species (Noxious Weed) List

Common Name	Scientific Name	Weed Code	SNFPA	NDA	CDFA	Cal-IPC	LTBWCG	LTBMU
Russian knapweed	<i>Acroptilon repens</i>	ACRE3	NW	B	B	Moderate	Group 1	Medium
Tree of heaven	<i>Ailanthus altissima</i>	AIAL	NW		C	Moderate	Group 1	N/A
Cheat grass	<i>Bromus tectorum</i>	BRTE	NW			High		Low
Heart-podded hoarycress/whitetop	<i>Cardaria draba</i>	CADR	NW	C	B	Moderate	Group 1	Medium
Globe-podded hoarycress/hairy whitetop	<i>Cardaria pubescens</i>	CAPU6	NW		B	Limited	Group 1	Medium
Musk thistle	<i>Carduus nutans</i>	CANU4	NW	B	A	Moderate	Group 1	High
Purple starthistle/red starthistle	<i>Centaurea calcitrapa</i>	CECA2	NW	A	B	Moderate	Group 1	N/A
Diffuse knapweed	<i>Centaurea diffusa</i>	CEDI3	NW	B	A	Moderate	Group 1	Medium
Spotted knapweed	<i>Centaurea maculosa</i>	CEMA4	NW	A	A	High	Group 2	Medium
Yellow starthistle	<i>Centaurea solstitialis</i>	CESO3	NW	A	C	High	Group 1	Medium*
Squarrose knapweed	<i>Centaurea virgata</i> ssp. <i>squarrosa</i>	CESQ	NW	A	A	Moderate		Medium
Rush skeletonweed	<i>Chondrilla juncea</i>	CHJU	NW	A	A	Moderate	Group 1	High
Canada thistle	<i>Cirsium arvense</i>	CIAR4	NW	C	B	Moderate	Group 1	Medium
Bull thistle	<i>Cirsium vulgare</i>	CIVU	NW		C	Moderate	Group 2	High
Poison hemlock	<i>Conium maculatum</i>	COMA2		C		Moderate		Medium
Scotchbroom	<i>Cytisus scoparius</i>	CYSC4	NW		C	High	Group 2	Medium
Teasel/Fuller's teasel	<i>Dipsacus fullonum</i>	DIFU2				Moderate	Group 1	N/A
Stinkwort	<i>Dittrichia graveolens</i>	DIGR3				Moderate	Group 1	N/A
Quackgrass	<i>Elytrigia repense</i>	ELRE3	NW		B			N/A
Hydrilla/Waterthyme	<i>Hydrilla verticillata</i>	HYVE3	NW	A	A	High Alert		N/A
St. John's wort / Klamath weed	<i>Hypericum perforatum</i>	HYPE	NW	A	C	Moderate	Group 2	Medium
Dyer's woad	<i>Isatis tinctoria</i>	ISTI	NW	A	B	Moderate	Group 1	Medium
Tall whitetop / Perennial pepperweed/ broadleaved pepperweed	<i>Lepidium latifolium</i>	LELA2	NW	C	B	High	Group 2	Medium
Oxeye daisy	<i>Leucanthemum vulgare</i>	LEVU	NW			Moderate	Group 2	Medium
Dalmatian toadflax	<i>Linaria genistifolia</i> spp. <i>dalmatica</i>	LIDAD	NW	A	A	Moderate	Group 2	High
Yellow toadflax/butter & eggs	<i>Linaria vulgaris</i>	LIVU2		A		Moderate	Group 2	Medium
Purple loosestrife	<i>Lythrum salicaria</i>	LYSA2	NW	A	B	High	Group 1	Medium*

Common Name	Scientific Name	Weed Code	SNFPA	NDA	CDFA	Cal-IPC	LTBWCG	LTBMU
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>	MYSP2	NW	A		High		N/A
Scotch thistle	<i>Onoropordum acanthium</i> ssp. <i>acanthium</i>	ONAC	NW	B	A	High	Group 1	High
Curlyleaf pondweed/curly pondweed	<i>Potamogeton crispus</i>	POCR3				Moderate		N/A
Sulfur cinquefoil	<i>Potentilla recta</i>	PORE5		A	A		Group 1	Low
Himalaya blackberry	<i>Rubus armeniacus</i> (formerly <i>R. discolor</i>)	RUAR9	NW			High		Low
Medusahead	<i>Taeniatherum caput-medusae</i>	TACA8	NW	B	C	High	Group 1	High*
Tamarisk/saltcedar	<i>Tamarix chinensis</i> , <i>T. ramosissima</i> , & <i>T. parvifolia</i>	TACH2 TARA TAPA4	NW	C	B	High	Group 1	High*
Woolly mullein/common mullein	<i>Verbascum thapsus</i>	VETH	NW			Limited		N/A

Table Notes:

NOT ALL LISTED CA/NV NOXIOUS WEEDS ARE LISTED. AS CONDITIONS CHANGE, NEW OCCURRENCE OF SPECIES MAY BE FOUND. THIS LIST WILL BE UPDATED CONTINUOUSLY AS NEW SPECIES ARE FOUND.

Sierra Nevada Forest Plan Amendment (SNFPA) part 3.6 defines noxious weeds as: those plant species designated as noxious weeds by Federal or State law. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and generally non-native.

Nevada Department of Agriculture (NDA) noxious weed list (http://agri.nv.gov/nwac/PLANT_No WeedList.htm) divides noxious weeds into categories A, B, and C. Category A: Weeds not found or limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state in all infestations. Category B: Weeds established in scattered populations in some counties of the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur. Category C: Weeds currently established and generally widespread in many counties of the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer.

The California Department of Food and Agriculture's (CDFA) noxious weed list (<http://www.cdca.ca.gov/phpps/ipc/>) divides noxious weeds into categories A, B, and C. A-listed weeds are those for which eradication or containment is required at the state or county level. With B-listed weeds, eradication or containment is at the discretion of the County Agricultural Commissioner. C-listed weeds require eradication or containment only when found in a nursery or at the discretion of the County Agricultural Commissioner. Q-listed weeds require temporary "A" action pending determination of a permanent rating.

California Invasive Plant Council (Cal-IPC) invasive plant inventory (<http://www.cal-ipc.org/ip/inventory/weedlist.php>) categorizes non-native invasive plants by the ecological impacts of each plant on wildlands into three categories high, moderate, & limited as well as an alert. An "alert" is assigned for species with significant potential for invading new ecosystems. High: these species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Moderate: these species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Limited: these species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score.

Lake Tahoe Basin Weed Coordinating Group (LTBWCG) prioritizes invasive weeds of concern by management group. Group 1: watch for, report, and eradicate immediately. Group 2: manage infestations with the goal of eradication (2010).

The Lake Tahoe Basin Management Unit (LTBMU) prioritizes noxious weeds based on their ecological impact and invasive potential and on the potential for effective management and control given the tools available to the LTBMU. A noxious weed can fall in to one of three categories: high, medium, or low. High: species that have a large ecological impact and/or invasive potential and that are easily controlled. Medium: species that have a medium ecological impact and/or invasive potential and medium ability to be controlled. Low: species that have a low ecological impact and/or invasive potential and are not easily controlled. The weighted ranking was used in this table except on those species where a weighted ranking was not given due to no current known occurrences on the LTBMU; those species are indicated with an asterisk (*). Species with an N/A were not evaluated. Evaluation of species can be done using the Development of Management Ranking System for Terrestrial Noxious Weeds/Invasive Plant Species, USDA Forest Service, Lake Tahoe Basin Management Unit, 2011, Gross & Olin.

E.2.4.2. Aquatic Invasive Species

The Lake Tahoe Region AIS Program is governed by existing Federal, State and local laws. Those relevant to water quality and/or to aquatic invasive species include but are not limited to:

Federal

- Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) of 1990, 16 USC 4721
- Endangered Species Act (ESA) of 1973
- Lacey Act of 1990 as amended in 1998
- National Environmental Policy Act of 1970
- National Invasive Species Act of 1996 (NISA)
- Clean Water Act of 1972
- Safe Drinking Water Act of 1974

State

- California-Nevada Compact for Jurisdiction on Interstate Waters
- California Environmental Quality Act (CEQA)
- California Fish and Game Code 2301
- Nevada Revised Statutes (NRS 503.597; NRS 488)

Regional

- Tahoe Regional Planning Compact (Public Law 96-551)
- Tahoe Regional Planning Agency Code of Ordinances (Chapter 79.3)

Further information on authorities and the parameters and abilities of the Lake Tahoe Region AIS program is provided in the *Lake Tahoe Region Aquatic Invasive Species Management Plan* which is available at http://www.trpa.org/documents/docdwnlds/AIS/LTAIS_Magmt_Plan_Final_11-2009.pdf.

AIS program in the Lake Tahoe Basin, including the LTBMU, is managed by the AIS Coordinating Committee. Members include representatives from the following government agencies and entities:

Federal

- USDOL, US Fish and Wildlife Service
- USDA, Agricultural Research Service
- USDA, US Forest Service, Lake Tahoe Basin Management Unit

State

- California Department of Fish & Game
- California Department of Parks and Recreation
- California Regional Water Quality Control Board (Lahontan)
- California State Lands Commission
- California Tahoe Conservancy
- Nevada Department of Conservation and Natural Resources
- Nevada Department of Wildlife

Regional

- Tahoe Regional Planning Agency
- Tahoe Resource Conservation District
- Tahoe Science Consortium (ex-officio)

The information for aquatic invasive species are continually updated and modified annually as new invasive species are identified, new sites are identified, and as management actions eradicate invasive. The list of aquatic invasive species presented in this section are the current aquatic invasive species that are considered of concern for the LTBMU.

Table E4. Aquatic Invasive Species List

Group	Common	Scientific
Aquatic	Corbicula (Asian Clam)	<i>Corbicula fluminea</i>
	Zebra Mussel	<i>Dreissena polymorpha</i>
	Quagga Mussel	<i>Dreissena rostriformis bugensis</i>
	New Zealand Mudsail	<i>Potamopyrgus antipodarum</i>
	Bullhead Catfish	<i>Ameiurus spp.</i>
	Bluegill	<i>Lepomis macrochirus</i>
	Largemouth Bass	<i>Micropterus salmoides</i>
	Crappie	<i>Pomoxis spp.</i>
	Bullfrog	<i>Rana catesbeiana</i>

E.2.5. Species Specific Limited Operating Periods

This section notes the current expected limited operating periods for specific species that can be updated as new information becomes available and or as new species become listed or delisted. The following limited operating periods have been established to conform to the LTBMU site conditions.

E.2.5.1. Sierra Nevada (mountain) yellow-legged frog

Maintain a Sierra Nevada yellow-legged frog (*Rana sierrae*) LOP April 15 through August 15 within a minimum of 25 feet of known breeding sites. Prohibit habitat manipulation or other activity that could create bank disturbance unless surveys confirm that egg masses are not present.

E.2.5.2. Cliff Nesting Raptors

Do not construct roads and trails within ¼ mile of the top or base of known cliff nesting raptor sites. Within ¼ mile of occupied nest sites or habitat, prohibit activities such as rock climbing that may disrupt breeding during the raptor nesting season (April 1-July 31).

E.2.5.3. Marten

Maintain a marten LOP (May 1 through July 31) within ¼ mile of known den sites. Prohibit vegetation treatments and other activities that may disrupt breeding (e.g. timber thinning, prescribed fire, restoration, construction, road or trail building) within this area during the breeding season.

E.2.5.4. Willow flycatcher

Maintain a willow flycatcher LOP during the breeding season for activities that are likely to disrupt breeding within ¼ mile of occupied nest sites or habitat during the period of June 1 through August 31 (including no timber thinning, prescribed fire, restoration activities, grazing, utilities work, road or trail building).

E.2.5.5. Townsend's big-eared Bat

Maintain a Townsend's big-eared bat LOP May 1 through August 31 within a minimum of 300 feet of roost sites. Prohibit habitat manipulation or other activity that could create a noise disturbance unless surveys confirm that bats are not present; Prohibit burning near a roost site unless surveys confirm bats are not present or smoke will not enter the roost. Exceptions may be permitted when surveys confirm bats are not present.

E.2.5.6. California Spotted Owl and Northern Goshawk - Breeding

Maintain a California spotted owl and /or northern goshawk LOP during the breeding season for activities that may disrupt breeding within a minimum of ¼ mile of the nest site or activity center, unless surveys confirm that spotted owls are not nesting. When the location of the nest site or activity center is uncertain, conduct surveys to establish or confirm the location prior to implementing activities.

E.2.5.7. California Spotted Owl and Northern Goshawk – Vegetation Treatments Waiver

The spotted owl and/or northern goshawk LOP may be waived for vegetation treatments when a biological review determines that such projects are unlikely to result in breeding disturbance considering their intensity, duration, timing, and specific location. The LOP buffer distance may be modified when a biological review concludes that a nest site would be shielded from planned activities by topographic features that would minimize disturbance.

E.2.5.8. California Spotted Owl and Northern Goshawk – Prescribed Fire Waiver

The spotted owl and/or northern goshawk LOP restrictions may be waived, where necessary, to allow for use of early season prescribed fire in PACs when surveys for the target species (per current protocol standards by Region 5) demonstrate that reproduction has not occurred within the PAC in at least the previous three years and the PAC was not occupied during the previous breeding season.

E.2.6. Full List of Species Considered for the Draft EIS

The table presented in this section displays the full list of FWS, LTBMU Sensitive, and other species considered for inclusion in the Draft EIS as of August 2011.

Species Considered - “N/A” indicates that a species was considered, but not included in the Draft EIS for analysis based on what is described in the “comments / rationale” column.

Status Definitions (NatureServe Rankings) - : G = Global Conservation Status - full species, range-wide; T = Global Conservation Status - subspecies, varieties, and population range-wide; N = National Conservation Status; S = State / Province Status; 1 = Critically Imperiled; 2 = Imperiled; 3 = Vulnerable; 4 = Apparently Secure; 5 = Secure.

Detailed information for all species can be found at:

<http://www.natureserve.org/explorer/index.htm>. Just enter the species common or scientific name in the species quick search box and follow the on-line instructions. In cases where additional reference information was needed (beyond Nature Serve) to determine if the species would be carried forward for further consideration, the reference link is added into the “comments / rationale” column of the species table.

Table E5. Complete List of Species Considered within the LTBMU Draft EIS.

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Amphibians	Western Toad	<i>Bufo boreas</i>	G4, S5 (CA) S4 (NV)	meadow, riparian	Yes	Aquatic Ecosystem Management
Amphibians	Yosemite Toad	<i>Bufo canorus</i>	G2 Candidate Species	meadow, riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Amphibians	Mount Lyell Salamander	<i>Hydromantes platycephalus</i>	G3, SSC S3 (CA)	riparian, logs, woody debris	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Amphibians	Foothill Yellow-legged Frog	<i>Rana boylei</i>	G3, SSC	Rivers, Riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Amphibians	California Red-legged Frog	<i>Rana draytonii</i>	G2G3 Federally Threatened, SSC	riparian, ponds	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed; also not on FWS list
Amphibians	Northern Leopard Frog	<i>Rana pipiens</i>	G5, S2 (CA) S2S3 (NV), FSS	rivers, wetlands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Amphibians	Sierra Nevada Yellow-legged Frog	<i>Rana sierrae</i>	G1 Candidate Species, FSS	small lakes and wetlands	Yes	Species Specific Management
Amphibians	Western Spadefoot	<i>Spea hammondi</i>	G3, SSC, S3	intermittent pools, grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Arachnids	A Cave Obligate Harvestman	<i>Banksula galilei</i>	G1	only found in caves in Placer County	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed
Birds	Cooper's Hawk	<i>Accipiter cooperii</i>	G5 S3	riparian, general forest	N/A	uncommon in LTBMU
Birds	Northern Goshawk	<i>Accipiter gentilis</i>	G5, S2S3, FSS, SSC, CDF:S, TRPA-SI	riparian, general forest, late seral closed canopy	Yes	Species Specific Management
Birds	Sharp-shinned Hawk	<i>Accipiter striatus</i>	G5 S3	riparian, general forest	N/A	uncommon in LTBMU
Birds	Tricolored Blackbird	<i>Agelaius tricolor</i>	G2G3, S1(NV) S2 (CA), GB, SN, SSC	grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Grasshopper Sparrow	<i>Ammodramus savannarum</i>	G5, SSC, S2 (CA, SU (NV)	grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Sage Sparrow	<i>Amphispiza belli</i>	G5, SNRB, SNRN (CA) S4B, S4N (NV), GB	desert, shrubland	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Golden Eagle	<i>Aquila chrysaetos</i>	G5, FP, TRPA-SI CDF:S, S3 (CA) , S4 (NV)	Alpine, Cliffs	Yes	Cliffs, Caves, and Cave Surrogates Management
Birds	Great Egret	<i>Ardea alba</i>	G5, S4 (CA) S4B (NV)	Riparian	N/A	local population considered secure

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	Great Blue Heron	<i>Ardea herodias</i>	G5, S4 (CA) S5 (NV)	Riparian	N/A	local population considered secure
Birds	Burrowing Owl	<i>Athene cunicularia</i>	G4, SSC S2 (CA), S3B (NV) GB	Grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Ferruginous Hawk	<i>Buteo regalis</i>	G4, S3S4 (CA) S2 (NV) GB	Desert, grassland, riparian, cliffs	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to accidental occurrence within the LTBMU
Birds	Swainson's Hawk	<i>Buteo swainsoni</i>	G5, S2 (CA) S2B (NV) GB, ST	Desert, grassland, riparian, woodlands	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to accidental occurrence within the LTBMU
Birds	Sanderling	<i>Calidris alba</i>	G5, SNRN (CA) SNA (NV), GB	Riparian, sand dunes	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to accidental occurrence within the LTBMU
Birds	Greater Sage Grouse	<i>Centrocercus urophasianus</i>	GB, SSC, S3 (CA) S3S4 (NV)	desert, grassland, shrubs	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	G4,T3, SSC S2 (CA) S3B (NV) GB	Riparian, sand dunes	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	Mountain Plover	<i>Charadrius montanus</i>	G2	desert, grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	G5, SNRB (CA) S1B (NV)	Riparian, General Forest	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	G5T3Q Candidate, SE S! (CA) S1B (NV)	Riparian, Wetlands, General Forest	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Olive-sided Flycatcher	<i>Contopus cooperi</i>	G4, SSC S4 (CA) S2B (NV) SN	Riparian, Wetlands, General Forest	Yes per habitat but not in detail	General Forest Management
Birds	Yellow Rail	<i>Coturnicops noveboracensis</i>	G4, SSC S1S2 (CA) GB	riparian, grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Black Swift	<i>Cypseloides niger</i>	G4, SSC S2 (CA) GB, SN	Aerial, Bare rock/talus/scree, Cliff	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	A Yellow Warbler	<i>Dendroica petechia brewsteri</i>	G5T3?, SSC S2 (CA), MIS	riparian	Yes per habitat but not in detail	Aquatic Ecosystem Management
Birds	White-tailed Kite	<i>Elanus leucurus</i>	G5, FP S3 (CA)	croplands, riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	A Willow Flycatcher	<i>Empidonax traillii adastus</i>	G5T5, SE S1S2, S3B (NV), FSS	wet meadow	Yes	Species Specific Management
Birds	Prairie Falcon	<i>Falco mexicanus</i>	S3 (CA) S4 (NV) GB	Alpine, Cliffs	Yes per habitat but not in detail	Cliffs, Caves, and Cave Surrogates Management
Birds	Peregrine falcon	<i>Falco peregrinus</i>	G4, SCD FP S2B,SNRN (CA) S2 (NV) GB, SN, TRPA-SI	Aerial, Cliffs, General Forest	Yes	Cliffs, Caves, and Cave Surrogates Management
Birds	Bald Eagle	<i>Haliaeetus leucocephalus</i>	G5, SE FP CDF:S S2 (CA) S1B,S3N (NV), TRPA-SI	Snags, Cliffs, Riparian, General Forest	Yes	General Habitat Management
Birds	Harlequin Duck	<i>Histrionicus histrionicus</i>	G4, S2 (CA)	Rivers, Riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Loggerhead Shrike	<i>Lanius ludovicianus</i>	G4, SSC S4 (CA) , S4 (NV) GB	grasslands	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	Black Rail	<i>Laterallus jamaicensis coturniculus</i>	G4, S1 (CA)	wetlands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	California Black Rail	<i>Laterallus jamaicensis coturniculus</i>	G4T1, ST FP, S1 (CA)	wetlands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Marbled Godwit	<i>Limosa fedoa</i>	SNRN (CA) S3M (NV) GB	grasslands, sand dunes	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	Lewis's Woodpecker	<i>Melanerpes lewis</i>	G4, SNR (CA) S3 (NV) GB, SN	riparian, general forest	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to occasional occurrence within the LTBMU
Birds	Long-billed Curlew	<i>Numenius americanus</i>	G5, S2 (CA) S2S3B (NV) GB	grassland, riparian	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	Whimbrel	<i>Numenius phaeopus</i>	G5, SNRN (CA) SNA (NV), GB	grassland, riparian	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to accidental occurrence within the LTBMU
Birds	Flammulated Owl	<i>Otus flammeolus</i>	G4, S2S4 GB, SN	snags, general forest	Yes per habitat but not in detail	General Forest Management

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	Osprey	<i>Pandion haliaetus</i>	G5, CDF:S S3 (CA) S1B, S3M (NV), TRPA-SI	Snags, Cliffs, Riparian, Shorelines	Yes	Aquatic Ecosystem Management; General Forest Management
Birds	White-Faced Ibis	<i>Pegadis chihi</i>	G5, S1 (CA) S3B (NV)	riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	American White Pelican	<i>Pelecanus erythrorhynchos</i>	G3, SSC S1 (CA), S2B NV	riparian	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to occasional occurrence within the LTBMU
Birds	Wilson's Phalarope	<i>Phalaropus tricolor</i>	G5, SNRB,SNRN (CA) S2S3B,S4M (NV) GB	grassland, riparian	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	White-headed Woodpecker	<i>Picoides albolarvatus</i>	G4, SNR (CA) S2 (NV), GB, SN	snags, conifer forests	Yes	General Forest Management
Birds	Black-backed Woodpecker	<i>Picoides arcticus</i>	G5, S3 (CA) S1 (NV) , MIS	snags, conifer forests	Yes per habitat but not in detail	General Forest Management
Birds	American Golden Plover	<i>Pluvialis dominica</i>	G5, SNA (CA) SNA (NV), GB	riparian, grasslands, sand dunes	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	American Avocet	<i>Recurvirostra americana</i>	G5, SNRB, SNRN (CA) S4B (NV), GB	riparian, marshes	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	Bank Swallow	<i>Riparia riparia</i>	G5, ST S2S3 (CA) S3B (NV)	riparian, grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Rufous Hummingbird	<i>Selasphorus rufus</i>	G5, S1S2 (CA) S3M (NV), SN	riparian, alpine, conifer forest	Yes per habitat but not in detail	Aquatic Ecosystem Management
Birds	Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	G5, S3 (CA) S2 (NV) GB, SN	snags, general forest	Yes per habitat but not in detail	General Forest Management
Birds	Brewer's Sparrow	<i>Spizella breweri</i>	G5, S3 (CA) S4B (NV) GB	desert, shrublands	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to rare occurrence within the LTBMU
Birds	Great Gray Owl	<i>Strix nebulosa</i>	G5, SE CDF:S, S1 (CA), FSS	riparian, general forest	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	California Spotted Owl	<i>Strix occidentalis occidentalis</i>	G3T3, SSC S3 (CA), S1N (NV) GB, SN, FSS, TRPA-SI	snags, general forest	Yes	Species Specific Management

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Birds	Solitary Sandpiper	<i>Tringa solitaria</i>	G5, SNA (CA) S4N (NV), GB	wetlands, grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Virginia's warbler	<i>Vermivora virginiae</i>	S2S3 (CA) S4B (NV), GB	riparian, general forest	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Gray Vireo	<i>Vireo vicinior</i>	G4, SSC S2 (CA), S3B (NV) GB	riparian, general forest	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Birds	Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	G5, SSC S3S4 (CA), S4B (NV)	wetlands, grasslands	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to occasional occurrence within the LTBMU
Crustaceans	Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	G3 Federally Threatened	vernal pools	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed; also not on FWS list
Crustaceans	Vernal Pool Tadpole Shrimp	<i>Lepidurus packardii</i>	G4 Federally Endangered	vernal pools	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed
Crustaceans	California Fairy Shrimp	<i>Linderiella occidentalis</i>	G3G4	vernal pools	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed
Fish	Wall Canyon Sucker	<i>Catostomus sp. 1</i>	G1	lakes and streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Fish	Warner Sucker	<i>Catostomus warnerensis</i>	G1 Federally Threatened	lakes and streams	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed; also not on FWS list
Fish	Mountain Sucker	<i>Catostomus platyrhynchus</i>	G5, S2S3	streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Tahoe Sucker	<i>Catostomus tahoensis</i>	G5	streams	Yes	Aquatic Ecosystem Management, concern for local population
Fish	Cui-ui	<i>Chasmistes cujus</i>	G1 Federally Endangered	streams	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed; also not on FWS list
Fish	Piute Sculpin	<i>Cottus beldingi</i>	G5, S4	streams	Yes	Aquatic Ecosystem Management, concern for local population
Fish	Sheldon Tui Chub	<i>Gila bicolor eury soma</i>	G4T1	streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Lahontan Lake Tui Chub	<i>Gila bicolor pectinifer</i>	G4T3, S1S2, FSS	large lakes, lakezone	Yes	Large Lake Management
Fish	High Rock Spring Tui Chub	<i>Gila bicolor ssp. 11</i>	G4TX	streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Cowhead Lake Tui Chub	<i>Gila bicolor vaccaceps</i>	G4T1	Cowhead slough	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Fish	Delta smelt	<i>Hypomesus transpacificus</i>	G1, S1, Federally threatened	California delta	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Lahontan Cutthroat Trout	<i>Oncorhynchus clarkii henshawi</i>	G4T3 Federally Threatened	large lakes and streams	Yes	Species Specific Management
Fish	Paiute Cutthroat Trout	<i>Oncorhynchus clarkii seleniris</i>	G4T1T2	large lakes and streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Rainbow Trout	<i>Oncorhynchus mykiss</i>	G5	lakes and streams	Yes	Recreational fisheries, Aquatic Ecosystem Management
Fish	Central Valley steelhead	<i>Oncorhynchus mykiss pop. 11</i>	G5T2Q, Federally Threatened	lakes and streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Redband Trout - Warner Valley	<i>Oncorhynchus mykiss pop. 4</i>	G5T2Q	lakes and streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fish	Kokanee Salmon	<i>Oncorhynchus nerka</i>	G5	lakes and streams	Yes	Recreational fisheries, Aquatic Ecosystem Management
Fish	Mountain Whitefish	<i>Prosopium williamsoni</i>	G5, SNR (NV)	lakes and streams	Yes	Aquatic Ecosystem Management; concern for local population
Fish	Lahontan Redside Shiner	<i>Richardsonius egregius</i>	G5	rivers, lakezone	Yes	Aquatic Ecosystem Management; concern for local population

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Fish	Brown Trout	<i>Salmo trutta</i>	G5	lakes and streams	Yes	Recreational fisheries, Aquatic Ecosystem Management
Fish	Brook Trout	<i>Salvelinus fontinalis</i>	G5	lakes and streams	Yes	Recreational fisheries, Aquatic Ecosystem Management
Fish	Lake Trout	<i>Salvelinus namaycush</i>	G5	lakes	Yes	Recreational fisheries, Aquatic Ecosystem Management
Insects	A Vernal Pool Andrenid Bee	<i>Andrena blennospermatis</i>	G2	vernal pools	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed
	An Andrenid Bee	<i>Andrena subapasta</i>	G1G3	grassland forbs	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed - reference link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/invert/Insects_-_Hymenoptera/Andrena_subapasta.pdf
	Tahoe Benthic Stonefly	<i>Capnia lacustra</i>	G1	deep water habitats (> 100feet) of Lake Tahoe	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components
	Carson Valley Wood Nymph	<i>Cercyonis pegala carsonensis</i>	G5T2 S1S2 (CA) / S2 (NV)	Great Basin valleys on Nevada	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed - reference link: http://www.flmnh.ufl.edu/butterflies/research/allyn_pdfs/AME135small.pdf

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Insects	Cosumnes Stripetail	<i>Cosumnoperla hypocrena</i>	G1	intermittent streams of the American and Cosumnes Rivers	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed
	Kings Canyon Cryptochian Caddisfly	<i>Cryptochia excella</i>	G1G2	benthic, springs & brooks in specific locations in CA / NV	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed - reference link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/invert/Insects_-_Trichoptera/Cryptochia_excella.pdf
	A Longhorned Beetle	<i>Desmocerus californicus</i>	G3	riparian forests of the Central Valley of CA	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Valley Elderberry Longhorn Beetle	<i>Desmocerus californicus dimorphus</i>	G3T2 Federally Threatened	riparian forests of the Central Valley of CA	N/A	species occurs outside the LTBMU - Lake Tahoe Watershed - also not on LTBMU FWS list - reference link: http://essig.berkeley.edu/endins/desmocer.htm
	Amphibious Caddisfly	<i>Desmona bethula</i>	G2	high elevation, first order streams	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Dotted Blue	<i>Euphilotes enoptes aridorum</i>	G5T1	urban areas	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Insects	Mono Lake Checkerspot	<i>Euphydryas editha monoensis</i>	G5T2T3	Grasslands, herbaceous, Woodland, Conifer	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	A Montane Ant (Northern Sierra Endemic Ant)	<i>Formica microphthalma</i>	G2?	Conifer Forests	N/A	not confirmed to be on LTBMU; not considered in detail since they will not be affected by LTBMU management or potential plan components
	Ricksecker's Water Scavenger Beetle	<i>Hydrochara rickseckeri</i>	G1G2	Shallow water, creeks, springs, brooks	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Nevada Viceroy	<i>Limenitis archippus lahontani</i>	G5T1T2	riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Sierra Needlefly	<i>Megaleuctra sierra</i>	G2Q	benthic, springs & brook	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Dune Honey Ant	<i>Myrmecocystus snellingi</i> (=arenarius)	G2?	Sand dunes	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	South Forks Ground Beetle	<i>Nebria darlingtoni</i>	G1	oak woodlands, South Fork American River	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.dot.ca.gov/dist3/projects/shingle/pdfs/vol1/5-07-Biological-Resources.pdf

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Insects	Gold Rush Hanging Fly	<i>Orobittacus obscurus</i>	S1 (CA)	Western slopes of Sierra Nevada, forest to oak woodlands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/invert/Insects_-_Misc/Orobittacus_obscurus.pdf
	An Aquatic Moth	<i>Petrophila confusalis</i>	S1 (NV)	unknown	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Alkaline Sandhill Skipper	<i>Polites sabuleti alkaliensis</i>	G5T3T4	alkaline lakes	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.flmnh.ufl.edu/butterflies/research/allyn_pdfs/AME109s_mall.pdf
	Carson Valley Sandhill Skipper	<i>Polites sabuleti genoa</i>	G5T3T4	Carson River Valley	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.flmnh.ufl.edu/butterflies/research/allyn_pdfs/AME109s_mall.pdf
	Alkali Skipper	<i>Pseudocopaodes eunus</i>	G3	Riparian, Alkali flats in arid areas	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.nearctica.com/butter/plate27/Peunus.htm

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Insects	Carson Wandering Skipper	<i>Pseudocopaeodes eunus obscurus</i>	G3G4T1 Federally Endangered	grassland	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - also not on FWS list - reference link: http://xerces.org/wp-content/uploads/2008/09/pseudocopaeodes_eunus_obscurus.pdf
	Spiny Rhyacophilan Caddisfly	<i>Rhyacophila spinata</i>	G1G2	benthic, creeks, rivers	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Nokomis Fritillary	<i>Speyeria nokomis</i>	G3	wet places in arid areas	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Apache Fritillary	<i>Speyeria nokomis apacheana</i>	G3T2	unknown	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Carson Valley Silverspot	<i>Speyeria nokomis carsonensis</i>	G3T1	Carson River Valley	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.nature.org/wherewework/northamerica/states/nevada/science/art11296.html
	An Endemic Ant	<i>Stenamma wheelerorum</i>	G1?	Conifer Forests	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

Group	Species Name		Status	Habitat	Consider species for analysis in Draft EIS	Comments / Rationale
Mammals	Pallid Bat	<i>Antrozous pallidus</i>	G5, SSC, S3 (CA) S3 (NV)	Graslands, deserts, woodlands, conifer forests	N/A	species considered secure locally
	Sewellel	<i>Aplodontia rufa</i>	G5, S3 (CA) S1 (NV)	riparian, conifer forests	N/A	drop in lieu of specific subspecies: <i>Aplodontia rufa californica</i>
	Sierra Nevada Mountain Beaver (Mono Basin Mountain Beaver, Nevada Natural Heritage Program)	<i>Aplodontia rufa californica</i>	G5T3T4, SSC NV State-Protected Species S2S3 (CA) S1 (NV)	riparian, conifer forests	Yes	Aquatic Ecosystem Management; General Management
	American Beaver	<i>Castor canadensis</i>	G5	riparian	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components
	Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	G4, SSC S2S3 (CA) S2 (NV), FSS	cliffs, conifer forests, deserts, prairies, riparian, caves, mines, cave surrogates	Yes	Cliffs, Caves, and Cave Surrogates Management
	Big Brown Bat	<i>Eptesicus fuscus</i>	G5, S5 (CA) S4 (NV)	conifer forests, urban environments	N/A	Species considered secure
Mammals	Spotted Bat	<i>Euderma maculatum</i>	G4, SSC S2S3 (CA) , S2 (NV)	deserts, forests, prominent rock features	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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Mammals	Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	G5, S5 (CA) S3 (NV), MIS	snags, general forest	N/A	Species considered secure
	Wolverine	<i>Gulo gulo</i>	G4, ST FP, S2 (CA) , SH (NV), FSS	alpine, conifer forests	Yes (subspecies only: (<i>Gulo Gulo luteus</i>))	Potential for subspecies to occur in Plan area during the life of the Plan
	Silver-haired Bat	<i>Lasionycteris noctivagans</i>	G5, S3S4 (CA) S3 (NV)	general forest	N/A	Species considered secure
	Western Red Bat	<i>Lasiurus blossevillii</i>	SSC S3? CA) S1 (NV)	riparian, general forest	N/A	Low probability to be found in the Plan area – not expected that management will affect species
	Hoary Bat	<i>Lasiurus cinereus</i>	G5	general forest	N/A	Species considered secure
	Sierra Nevada Snowshoe Hare	<i>Lepus americanus tahoensis</i>	G5T3T4Q	general forest	N/A	General Forest Management - reference link: http://wildlife1.wildlifeinformation.org/S/0MLagomorph/Leporidae/Lepus/Lepus_americanus.html
	American Marten	<i>Martes americana</i>	G5, S3S4 (CA) S2S3 (NV), FSS	snags, woody debris, general forest	Yes	General Forest Management; General Management
	Fisher - West Coast Distinct Population Segment	<i>Martes pennanti pop. 1</i>	G5T2T3Q Candidate Species, SSC S2S3 (CA)	snags, woody debris, general forest, riparian	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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Mammals	California myotis	<i>Myotis californicus</i>	G5, S5 (CA) S4 (NV)	cliffs, general forest, riparian,	N/A	Species considered secure
	Western Small-footed Myotis	<i>Myotis ciliolabrum</i>	G5, S2S3 (CA) S3 (NV)	cliffs, general forest, riparian, snags	Yes per habitat but not in detail	Cliffs, Caves, and Cave Surrogates Management
	Long-eared Myotis	<i>Myotis evotis</i>	G5, S4? (CA) S4 (NV)	cliffs, general forest, riparian,	N/A	Species considered secure
	Little Brown Myotis	<i>Myotis lucifugus</i>	S2S3 (CA) S3 (NV)	general forest, riparian, caves, buildings,	N/A	Species considered secure
	Fringed Myotis	<i>Myotis thysanodes</i>	G4G5, S4 (CA) S2 (NV)	cliffs, general forest, riparian,	Yes per habitat but not in detail	Cliffs, Caves, and Cave Surrogates Management
	Long-legged Myotis	<i>Myotis volans</i>	G5	cliffs, caves, general forest,	N/A	Species considered secure
	Yuma Myotis	<i>Myotis yumanensis</i>	G5, S4 (CA)	cliffs, general forest, riparian,	N/A	Species considered secure
	Lodgepole Chipmunk	<i>Neotamias speciosus</i>	G4	cliffs, general forest, riparian,	N/A	Species considered secure

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Mammals	American Pika	<i>Ochotona princeps</i>	G5, S3S4 (CA) S2 (NV)	alpine, rocky talus slopes	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components
	Mule Deer	<i>Odocoileus hemionus</i>	G5, TRPA-SI	general forest	Yes	Species considered secure
	Western Pipistrelle	<i>Pipistrellus hesperus</i>	G5	rocky canyons, deserts	N/A	Species considered secure
	Preble's Shrew	<i>Sorex preblei</i>	G4, SNR (CA) S1S2 (NV)	riparian, desert, grasslands	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Trowbridge's Shrew	<i>Sorex trowbridgii</i>	G5, S4S5 (CA) S2 (NV)	general forest, riparian, woody debris	Yes per habitat but not in detail	General Forest Management
	Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>	G5	Urban environments, general forest, riparian,	N/A	Species considered secure
	American Black Bear	<i>Ursus americanus</i>	G5	general forest	N/A	Species considered secure
	Red Fox	<i>Vulpes vulpes</i>	G5, S1 (CA), S2 (NV)	general forest	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - considered extremely rare or extinct on LTBMU

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	Sierra Nevada Red Fox	<i>Vulpes vulpes necator</i>	G5T3, ST S1 (CA), S3 (NV), FSS	general forest	Yes	considered extremely rare or extinct on LTBMU
Mollusks	Tight Coin (snail)	<i>Ammonitella yatesii</i>	G1	terrestrial	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	California Floater	<i>Anodonta californiensis</i>	G3Q	Shallow water, creeks, springs, brooks	N/A	species occurs outside the LTBMU - Lake Tahoe watershed - reference link: http://www.xerces.org/california-floater/
	Pyramid Lake Pebblesnail	<i>Fluminicola dalli</i>	G1	Pyramid Lake	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Virginia Mountains Pebblesnail	<i>Fluminicola virginus</i>	G1	Pyramid Lake	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Great Basin Rams-horn	<i>Helisoma newberryi newberryi</i>	G1Q / FSS	Freshwater	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to burrowing in soft mud species maybe invisible even when abundant
	Smooth Juga	<i>Juga interioris</i>	G1	Freshwater	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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Mollusks	Oasis Juga	<i>Juga laurae</i>	G1	Freshwater	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Western Pearshell	<i>Margaritifera falcata</i>	G4G5 / SNR (CA / NV)	Rivers	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Sierra Sideband (snail)	<i>Monadenia mormonum</i>	G2	terrestrial	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Button's Sierra Sideband (snail)	<i>Monadenia mormonum buttoni</i>	G2T1	terrestrial	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Fly Ranch Pyrg	<i>Pyrgulopsis bruesi</i>	G1	thermal spring in Northwestern NV	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Western Lahontan Pyrg	<i>Pyrgulopsis longiglans</i>	G2G3	Freshwater	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Wong's Springsnail	<i>Pyrgulopsis wongi</i>	G2	Freshwater	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Plants	Mountain Bentgrass	<i>Agrostis humilis</i>	G4, S1.3 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Jepson's Onion	<i>Allium jepsonii</i>	G1		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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Plants	Bristly-leaf Rockcress	<i>Arabis rectissima</i> <i>var simulans</i>	G4G5T1Q, S1(NV), LSI,	General forest	Yes	Known to occur within the Lake Tahoe watershed
	Galena Creek Rockcress	<i>Arabis rigidissima</i> <i>var. dermat</i>	G3T2Q, S1.2 (CA) S2 (NV), FSS	Rocky habitat, general forest, aspen	Yes	Known to occur within the Lake Tahoe watershed
	Tiehm's Rockcress	<i>Arabis tiehmii</i>	G2 S1(NV), FSS	rocky habitats	Yes	Suspected to occur within the Lake Tahoe watershed
	Nissenan Manzanita	<i>Arctostaphylos nisseniana</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Margaret's Rushy Milkvetch	<i>Astragalus convallarius</i> <i>var. margaretae</i>	G5T2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Lemmon's Milkvetch	<i>Astragalus lemmonii</i>	G3?		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Lavin's Egg Milkvetch	<i>Astragalus oophorus</i> <i>var. lavinii</i>	G4T2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Lahontan Milkvetch	<i>Astragalus porrectus</i>	G3?		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Pulsifer's Milkvetch	<i>Astragalus pulsiferae</i>	G4, S2S3 (NV)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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Plants	Pulsifer's Milkvetch	<i>Astragalus pulsiferae</i> var. <i>coronensis</i>	G4T3, S3.2 (CA), S1 (NV)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Pulsifer's Milkvetch	<i>Astragalus pulsiferae</i> var. <i>pulsiferae</i>	G4T2, S2.2 (CA), S1 (NV)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Tiehm's Milkvetch	<i>Astragalus tiehmii</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Balsamroot	<i>Balsamorhiza macrolepis</i>	G3G4		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	California Balsamroot	<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	G3G4T2, S2.2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	trianglelobe moonwort	<i>Botrychium ascendens</i>	G2G3, S1.3? (CA) S1 (NV), FSS	Meadow, shrublands, seeps, fens, streams	Yes	Known to occur within the Lake Tahoe watershed
	scalloped moonwort	<i>Botrychium crenulatum</i>	G3, S2.2 (CA) S1? (NV), FSS	Seeps, streams, wet roadside ditches and drainage ways	Yes	Known to occur within the Lake Tahoe watershed
	narrowleaf grapefern	<i>Botrychium lineare</i>	G2?, S1.3(CA), FSS		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	common moonwort	<i>Botrychium lunaria</i>	G5, S2 (CA), FSS	Meadows	Yes	Suspected to occur within the Lake Tahoe watershed

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Plants	Mingan's Moonwort	<i>Botrychium minganense</i>	G4, FSS		Yes	Known to occur within the Lake Tahoe watershed
	mountain moonwort	<i>Botrychium montanum</i>	G3, S1.1 (CA), FSS		Yes	Known to occur within the Lake Tahoe watershed
	Bolander's bruchia moss	<i>Bruchia bolanderi</i>	G3, S2.2(CA), FSS		Yes	Known to occur within the Lake Tahoe watershed
	Pleasant Valley Mariposa Lily	<i>Calochortus clavatus var. avius</i>	G4T3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Stebbin's Morning-glory	<i>Calystegia stebbinsii</i>	G1, FE		N/A	species occurs outside the LTBMU - Lake Tahoe watershed - also not on FWS list for LTBMU
	Pine Creek Evening-primrose	<i>Camissonia boothii ssp. Alyssoides</i>	G5T4		N/A	Species considered secure
	Nevada Evening-primrose	<i>Camissonia nevadensis</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	claspbract sedge	<i>Carex amplexans</i>	G2? CBR		N/A	Not recognized as a separate species at this time.
	Mud Sedge	<i>Carex limosa</i>	G5, S2.2 (CA)	Fens, meadows	Yes	Known to occur within the Lake Tahoe watershed, semi common within the LTBMU

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Plants	Sheldon's Sedge	<i>Carex sheldonii</i>	G4, S2.2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Valley Sedge	<i>Carex vallicola</i>	G5, S2.3 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Pine Hill Ceanothus	<i>Ceanothus roderickii</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Alpine Pincushion	<i>Chaenactis douglassii</i> var. <i>alpina</i>	G5T5		N/A	Known to occur within the Lake Tahoe watershed, but does not currently have a rare rank, will monitor
	Red Hills Soaproot	<i>Chlorogalum grandiflorum</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Oval-leaf Viburnum	<i>Ciburnum ellipticum</i>	G5		N/A	Species considered secure
	Two-lobed Clarkia	<i>Clarkia biloba</i> ssp. <i>barndegeeae</i>	G4G5T2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Alpine Springbeauty	<i>Claytonia megarhiza</i>	G4G5, S2.3 (ca)	Rocky habitats	Yes	Known to occur within the Lake Tahoe watershed
	Great Basin Springbeauty	<i>Claytonia umbellata</i>	G5?		N/A	Species considered secure
	Hispid Bird's-beak	<i>Cordylanthus mollis</i> ssp. <i>Hispidus</i>	G2T2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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	Subalpine Cryptantha	<i>Cryptantha crymophila</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Alkali False Whitlow-grass	<i>Cusickiella douglasii</i>	G4G5		N/A	Species considered secure
	Bodie Hills Cusickiella	<i>Cusickiella quadricostata</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Fungi	branched collybia	<i>Dendrocollybia racemosa</i>	G2G3, FSS	General Forest - older	Yes	Historical record - known to occur within the Lake Tahoe watershed
Plants	Doublet	<i>Dimeresia howellii</i>	G4?		N/A	Species considered secure
	Dwaft Downingia	<i>Downingia pusilla</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Lake Tahoe Draba	<i>Draba asterophora</i> var. <i>asterophora</i>	G4T2, S1.2(CA), FSS	Rocky habitats – tallus, scree	Yes	Known to occur within the Lake Tahoe watershed
	Cup Lake Draba	<i>Draba asterophora</i> var. <i>macrocarpa</i>	G4T1, S1.1(CA), FSS	Rocky habitats – tallus, scree	Yes	Known to occur within the Lake Tahoe watershed
	Carson Range Draba	<i>Draba stenoloba</i> var. <i>ramosa</i>	G5T2T3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Yuba Pass willowherb	<i>Epilobium howellii</i>	G2, S2.3 (CA), FSS	Meadow edges, seeps, streams	Yes	Known to occur within the Lake Tahoe watershed

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	Oregon Willowherb	<i>Epilobium oreganum</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Marsh willowherb	<i>Epilobium palustre</i>	G5, S1.3 (CA)	Fens, Meadow, seeps	Yes	Historic - Known to occur within the Lake Tahoe watershed
	Nevada Fleabane	<i>Erigeron eatonii</i> var. <i>nevadincola</i>	G5T4, S2.3(CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Starved Daisy	<i>Erigeron miser</i>	G2, S2.3 (CA), FSS	Rocky habitats - cliffs	Yes	Suspected to occur within the Lake Tahoe watershed
	Crosby's Buckwheat	<i>Eriogonum crosbyae</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Lemmon's Buckwheat	<i>Eriogonum lemmonii</i>	G3?		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Steamboat Buckwheat	<i>Eriogonum ovalifolium</i> var. <i>williamsiae</i>	G5T1 Federally Endangered		N/A	species occurs outside the LTBMU - Lake Tahoe watershed - also not on FWS list for LTBMU
	Prostrate Buckwheat	<i>Eriogonum prociduum</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Altered Andesite Buckwheat	<i>Eriogonum robustum</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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	Donner Pass Wild Buckwheat	<i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	G5T2, FSS	Ridge tops, steep slopes, dry	Yes	Suspected to occur within the Lake Tahoe watershed
	Pine Hill Flannelbush	<i>Fremontodendron decumbens</i>	G1		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Butte County Fritillary	<i>Fritillaria eastwoodiae</i>	G3Q		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	El Dorado Bedstraw	<i>Galium californicum</i> ssp. <i>Sierrae</i>	G5T1		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Nevada Greasebush	<i>Glossopetalon spinescens</i> var. <i>aridum</i>	G5T5?		N/A	Species considered secure
	American mannagrass	<i>Glyceria grandis</i>	G5, S1.3 (CA)	Fen, meadow, seep, marsh, swamp	Yes	Suspected to occur within the Lake Tahoe watershed
	Boggs Lake Hedge-hyssop	<i>Gratiola heterosepala</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Cusick's Stickseed	<i>Hackelia cusickii</i>	G5		N/A	Species considered secure
	Blandow's helodium moss	<i>Helodium blandowii</i>	G5, S1.3 (CA), FSS	Meadowsee p, fens	Yes	Known to occur within the Lake Tahoe watershed

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	Parry's Horkelia	<i>Horkelia parryi</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	shortleaf alpinegold	<i>Hulsea brevifolia</i>	G3, S3.2(CA), FSS		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Sierra Valley Ivesia	<i>Ivesia aperta</i> var. <i>aperta</i>	G2T2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Pine Nut Ivesia	<i>Ivesia pityocharis</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Grimy Ivesia	<i>Ivesia rhypara</i> var. <i>rhypara</i>	G2T1		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Plumas Ivesia	<i>Ivesia sericoleuca</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Webber Ivesia	<i>Ivesia webberi</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Red Bluff Rush	<i>Juncus leiospermus</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Ahart Rush	<i>Juncus leiospermus</i> var. <i>ahartii</i>	G2T1, S1.2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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	Red Bluff Rush	<i>Juncus leiospermus</i> var. <i>leiospermus</i>	G2T2, S2.2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Legenere	<i>Legenere limosa</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Kellogg's lewisia	<i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i>	G4T2T3, S2S3.3 (CA), FSS	Flat open forest	Yes	Suspected to occur within the Lake Tahoe watershed
	Kellogg's lewisia	<i>Lewisia kelloggii</i> ssp. <i>kelloggii</i>	G4T4?, FSS	Flat open forest	Yes	Suspected to occur within the Lake Tahoe watershed
	Long-petaled Lewisia	<i>Lewisia longipetala</i>	G2, S2.2 (CA), FSS	Rocky habitats – granitic slabs	Yes	Known to occur within the Lake Tahoe watershed
	Saw-toothed Lewisia	<i>Lewisia serrata</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Sage-like Loeftlingia	<i>Loeftlingia squarrosa</i> ssp. <i>artemisiarum</i>	G5T2T3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Packard's Desert-parsley	<i>Lomatium packardiae</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Raven's Lomatium	<i>Lomatium ravenii</i>	G4		N/A	Species considered secure

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	Rose-flower Desert-parsley	<i>Lomatium roseanum</i>	G2G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Mount Rose Lupine	<i>Lupinus caudatus</i> ssp. <i>Montigenus</i>	G5T4		N/A	Species considered secure
	Jaw-leaf Lupine	<i>Lupinus malacophyllus</i>	G3?		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Meesia Moss	<i>Meesia longiseta</i>	G4?, LSI	Stream banks, fens, meadows	Yes	Suspected to occur within the Lake Tahoe watershed, not yet known from FS land in CA but included as LTBMU special interest to confirm presence in CA prior to listing as R5 sensitive
	Three-ranked Hump Moss	<i>Meesia triquetra</i>	G5, S3S4.2 (CA), FSS	Fens, wetland sites	Yes	Known to occur within the Lake Tahoe watershed, common in the LTB but is still a R5 sensitive
	Broad-nerved Hump Moss	<i>Meesia uliginosa</i>	G4, S2.2 (CA), FSS	fens	Yes	Known to occur within the Lake Tahoe watershed
		<i>Mielichhoferia mielichhoferiana</i> var. <i>elongata</i>	G4?T4?, S2.2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Mount Rose Monkeyflower	<i>Mimulus angustifolius</i>	G1?Q, S1 (NV)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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	Effleaff Monkeyflower	<i>Mimulus ovatus</i>	G1G2Q		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Myurella Moss	<i>Myurella julacea</i>	G5, S1.3 (CA), LSI		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Pincushion Navarretia	<i>Navarretia myersii</i> ssp. <i>Myersii</i>	G1T1		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Northern Adder's-tongue	<i>Ophioglossum pusillum</i>	G5		N/A	Species considered secure
	Sand Cholla	<i>Opuntia pulchella</i>	G4		N/A	Species considered secure
	Orthotrichum moss	<i>Orthotrichum praemorsum</i>	G2, LSI	Rocky habitat	Yes	Known to occur within the Lake Tahoe watershed
	Shevock's bristle moss	<i>Orthotrichum shevockii</i>	G1, S1.3 (CA), LSI	rocky habitats – rock outcrops	Yes	Known to occur within the Lake Tahoe watershed
	Spjut's bristle moss	<i>Orthotrichum spjutii</i>	G1, S1.3 (CA), LSI	rocky habitats – volcanic rock walls	Yes	Suspected to occur within the Lake Tahoe watershed
	Nevada Oryctes	<i>Oryctes nevadensis</i>	G2G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Plants	Layne's Butterweed	<i>Packera layneae</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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Lichens	Veined water lichen	<i>Peltigera hydrothyria</i>	G3G5, FSS	Streams	Yes	Known to occur within the Lake Tahoe watershed
Plants	Wassuk Beardtongue	<i>Penstemon rubicundus</i>	G2G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Susanville Beardtongue	<i>Penstemon sudans</i>	G2G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Playa Phacelia	<i>Phacelia inundata</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Stebbins Phacelia	<i>Phacelia stebbinsii</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Washoe Pine	<i>Pinus washoensis</i>	G3Q		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Clustered Popcorn-flower	<i>Plagiobothrys glomeratus</i>	G2G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Tundra Pohlia Moss	<i>Pohlia tundrae</i>	G2G3, S2.3 (CA), LSI	Rocky habitats – alpine boulder and rock fields	Yes	Known to occur within the Lake Tahoe watershed, not sure if populations occur on LTBMU land
	Nuttall's Pondweed	<i>Potamogeton epihydrus ssp. Nuttallii</i>	G2G3, S2.3 (CA)	Marshes, swamps	Yes	Known to occur within the Lake Tahoe watershed, not sure if populations occur on LTBMU land

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Plants	Slender Pondweed	<i>Potamogeton filiformis</i>	G5, S1S2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Flatleaf Pondweed	<i>Potamogeton robbinsii</i>	G5, S2.3 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Hartweg's Golden Sunburst	<i>Pseudobahia bahifolia</i>	G2, FE		N/A	species occurs outside the LTBMU - Lake Tahoe watershed - also not on FWS list for LTBMU
	Alder-leaved Buckthorn	<i>Rhamnus alnifolia</i>	G5, S2.2 (CA)	Wet meadow, lodgepole forest	Yes	Known to occur within the Lake Tahoe watershed, not sure if populations occur on LTBMU land
	Tahoe Yellowcress	<i>Rorippa subumbellata</i>	G1 Candidate Species, SE, S1.1(CA), S1S2 (NV), FSS, TRPA-SI	sandy, shoreline habitats	Yes	Endemic to the Lake Tahoe watershed
	Sanford's Arrowhead	<i>Sagittaria sanfordii</i>	G3		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Water Bulrush	<i>Schoenoplectus subterminalis</i>	G4G5, S2.3 (CA)	Lakes, ponds, marshes	Yes	Known to occur within the Lake Tahoe watershed, not sure if populations occur on LTBMU land
	Hooded Skullcap	<i>Scutellaria galericulata</i>	G5, S2.3 (CA)	Meadows, seeps	Yes	Known to occur within the Lake Tahoe watershed

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	Sweet Marsh Ragwort	<i>Senecio hydrophiloides</i>	G4G5, S2.3 (CA)	Mesic habitats	Yes	Suspected to occur within the Lake Tahoe watershed
	Naked Catchfly	<i>Silene nuda ssp. nuda</i>	G4G5T1T2Q, SNR (CA), S1S2 (NV)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Monroe's Desert Mallow	<i>Sphaeralcea monroana</i>	G4, S1.2 (CA)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Peat Moss	<i>Sphagnum</i> species	Genus as habitat indicator	fens	Yes	Genera is indicative of unique wetland habitats in Sierra Nevada
	Masonic Mountain Jewelflower	<i>Streptanthus oliganthus</i>	G3, S2.2(CA), S2 (NV)		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Beatley's Clover	<i>Trifolium andersonii ssp. Beatleyae</i>	G4T4		N/A	Species considered secure
	Lemmon's Clover	<i>Trifolium lemmonii</i>	G4?		N/A	Species considered secure
	El Dorado Mule's-ears	<i>Wyethia reticulata</i>	G2		N/A	species occurs outside the LTBMU - Lake Tahoe watershed
Reptiles	Pacific Pond Turtle	<i>Actinemys marmorata</i>	G3G4, S3(CA) S3 (NV)	ponds	N/A	species occurs outside the LTBMU - Lake Tahoe watershed
	Northern Pacific Pond Turtle	<i>Actinemys marmorata marmorata</i>	G3G4T3Q, SSC S3(CA), S3 (NV)	ponds	N/A	species occurs outside the LTBMU - Lake Tahoe watershed

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	Rubber Boa	<i>Charina bottae</i>	G5, S4 (CA) S3S4 (NV)	riparian, general forest	N/A	local population considered secure
	Northern Alligator Lizard	<i>Elgaria coerulea</i>	G5, S5 (CA) S2S3 (NV)	riparian, general forest	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to population considered secure in CA and not occurring on the NV side of the LTBMU
	Sierra Alligator Lizard	<i>Elgaria coerulea palmeri</i>	G5T4, S2S3 (NV)	riparian, general forest	N/A	not considered in detail since they will not be affected by LTBMU management or potential plan components - due to population considered secure in CA and not occurring on the NV side of the LTBMU